

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke  
Executive Director



ESTIMATED TIME

3 HOURS

DATE: November 29, 1996

SUBJECT: Amendments - Final Action

**ACTION REQUIRED**

- (a) Final review of standard deductions for "slime and ice."
- (b) Final review of electronic reporting requirements.

**BACKGROUND**

**(a) Standard Deductions for Ice and Slime**

The EA/RIR for a regulatory amendment to provide standard deductions for slime and ice for IFQ halibut and sablefish was released for public review in October. Standard deductions are proposed to prevent inaccurate IFQ accounting of harvests caused by the lack of such standards. Current IFQ regulations require that the initial accurate scale weight at the time of landing should be reported. Numerous reports from the fishing industry have pointed to widespread violations of this provision, primarily under the guise of deductions for ice and slime. Deductions varying between 0 - 9 % have been reported.

The proposed action would provide no deduction for washed halibut and sablefish, and a 2% standard deduction for ice and slime for IFQ halibut. This deduction would occur through the use of product codes. If ice and slime are present on landed IFQ halibut, then the product code with the standard deduction would be used; if ice and slime are not present, then the product code without the standard deduction would be used. All IFQ sablefish would be required to be washed at offloading.

The alternatives included in the analysis are:

Alternative 1: No Action--no provision for standard deductions for ice and slime.

Alternative 2: 0% and 2% standard deductions for ice and slime for IFQ halibut and 0% standard deduction for ice and slime for IFQ sablefish.

The IFQ Industry Implementation Team reviewed the EA/RIR at its October 17-18, 1996 meeting. The Team extensively discussed the benefits of standardized deductions for halibut and sablefish and recommended a standard deduction of 0% for slime and ice for both species, with washing to occur at the point of landing for an initial, accurate scale weight. The Team was concerned that allowing both 0 and 2% deductions may result in processors using the higher deduction for initial landing reports. The resulting cumulative increase in pounds of

fish harvested to make up the weight attributed to slime and ice may raise a biological concern of exceeding the fixed gear allocation, and possibly the TAC. The Team noted that many processors already wash halibut and sablefish for a 0% deduction, and that remaining processors would be able to comply. Those unable to set up a washing station may be able to adjust the price paid for unwashed product at the point of landing to account for slime and ice. The Team further noted that while a 2% industry standard would be the basis for a deduction for halibut, no industry standard or scientific study would support a similar sablefish deduction. The Team noted two important factors for whatever deduction is chosen: (1) it must be uniform; and (2) it must be enforceable.

**(b) Final review of a regulatory amendment to require groundfish processors to utilize electronic recordkeeping and reporting.**

The EA/RIR for a regulatory amendment to require groundfish processors in the Bering Sea, Aleutian Islands, and Gulf of Alaska to utilize an electronic recordkeeping and reporting system for NMFS-required documents was distributed on July 30. In September 1996, the Council delayed final action to require groundfish processors to utilize electronic recordkeeping and reporting. The delay was to allow NMFS staff to hold a second meeting with industry members to refine the hardware and software requirements of the program. NMFS staff met with about 30 industry members in Seattle on October 29. A revised draft of the EA/RIR will be distributed at the Council meeting.

The analysis includes the following two alternatives:

Alternative 1: No Action: This would continue the current system of recordkeeping and reporting in which processors maintain paper logbooks and submit NMFS reports via conventional methods (i.e., fax and telex transmissions).

Alternative 2: Require groundfish processors that are subject to observer coverage to use NMFS-supplied software to electronically record harvest and processing activities on computer equipment. Conventional logbooks and associated NMFS reports would be replaced by electronic versions. At-sea processors would be required to transmit in-season NMFS reports using Inmarsat satellite equipment and shore-based processors would be required to use modems and phone systems. All processors using the electronic reporting system would be required to have a computer-operated printer to make paper copies of electronic logbook pages and transmitted reports at the processing site.

The NMFS electronic reporting system would be implemented in two stages. Phase 1 would consist of electronic versions of the daily production, weekly production, and check-in/check-out reports and would be distributed to the groundfish processing industry for voluntary use in early 1997. Legal implementation of Phase 1 would take place on January 1, 1998. Phase 2 would consist of electronic logbooks, vessel activity reports, and product transfer reports. These will be developed in 1997 and 1998 with full legal implementation in 1999.

At the September Council meeting, the AP recommended that the Council approve Alternative 2, with clarification that modem to modem and Standard C equipment would be allowed. The AP identified additional program areas for discussion at the October meeting with industry.

# Alaska Groundfish Data Bank

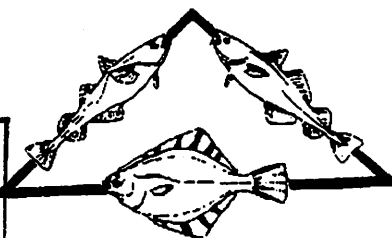
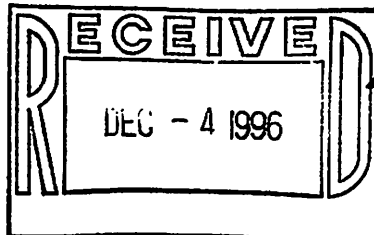
P.O. Box 2298 • Kodiak,

TO: RICK LAUBER, CHAIRMAN  
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

RE: ELECTRONIC REPORTING

DATE: DECEMBER 4, 1996

SENT BY FAX: 1 PP



## COMMENTS REGARDING ELECTRONIC REPORTING (AGENDA ITEM D-2(b))

AGDB's processing members recognize the benefits to be derived from a full electronic reporting system.

We do want to emphasize, as we have in previous public testimony, the necessity of testing the soft ware in each shorebased processing plant and training the plant staff to use the soft ware prior to final implementation of the full electronic reporting system. Accurate catch reporting is a vital element in our fisheries management regime and is important that the shift from faxes to electronic transmissions go smoothly.

We understand that NMFS concurs with this request and does not plan to implement any phase of the electronic reporting system until the software has been fully tested on the users' equipment.

The processors also want the software set up so data need only be entered once and can also be used for electronic reporting of Fish Tickets and internal reports to other branches of the company. We understand that NMFS concurs with this request.

Sincerely,

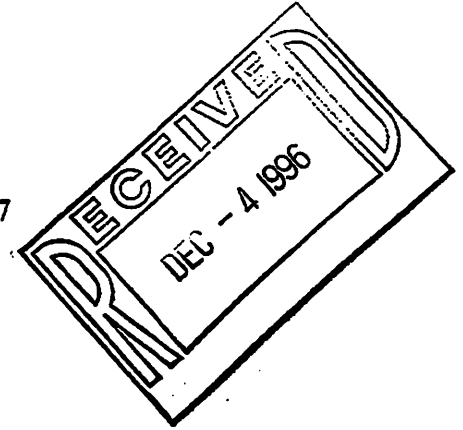
Chris Blackburn, director  
Alaska Groundfish Data Bank

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December 4, 1996

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Mr. Clarence G. Pautzke, Executive Director  
 North Pacific Fishery Management Council  
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Agenda Item D2B ELECTRONIC REPORTING Scheduled for Friday, December 14, 1996

Comments regarding recent publication:  
 Federal Register: Volume 61, Number 232  
 Dated Monday, December 2, 1996  
 Rules and Regulations  
 Page 63759 - 63761  
 DEPARTMENT OF COMMERCE  
 National Oceanic and Atmospheric Administration  
 50 CFR Part 679  
 Docket No. 950815208-6299-02; I.D. 080295B  
 Fisheries of the Exclusive Economic Zone Off Alaska; Groundfish of the Bering Sea and the  
 Aleutian Islands Area; Electronic Reporting

**FEDERAL REGISTRY PUBLICATION:**  
 "NMFS is implementing regulations that will require all catcher/processors vessels, mothership processor vessels, and shoreside processors subject to observer coverage to have electronic communication equipment, hardware, and software necessary for electronic transmission of observer data.

The equipment is intended for use by observers.

**PERSONAL COMMENTS:**

Voluntary electronic reporting by vessels to the NMFS's observer program has been in existence since 1992. There are approximately 168 vessels and 25 shore plants that are required to have some form of observer coverage. Investment by the at-sea segment in their cc:MAIL system for reporting exceeds \$500,000. NMFS's proposal would not allow the continued use of cc:MAIL for NMFS reporting and would require industry (as well as NMFS) to invest additional funds without regard to the significant economic impact on a significant number of small entities.

In the past, observers have prepared the reports and cooperated with the ship's captain to insure the transmission to NMFS. Observers are not trained by NMFS, nor are they licensed by the FCC to operate shipboard communications equipment and will continue to rely on the ship's staff for assistance. In the past, data reporting

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**FEDERAL REGISTRY PUBLICATION:**

Electronic submission of observer data is necessary to reduce both the time and expense of collecting fishery information by providing real-time data and to improve the overall efficiency of fishery management.

The action is intended to further the objectives of the fishery management plans for the groundfish fisheries off Alaska.

**EFFECTIVE DATE:** July 1, 1997

**ADDRESSES:** Individual copies of the environmental assessment/regulatory impact review (EA/RIR) prepared for this action may be obtained from Fisheries Management Division, Alaska Region, NMFS, P.O. Box 21668, Juneau, AK 99802, Attn: Lori Gravel. Send comments regarding burden estimates or any other aspect of the data requirements, including suggestions for reducing the burdens to NMFS and to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Washington, D.C. 20503, Attn: NOAA Desk Officer.

**FOR FURTHER INFORMATION CONTACT:**  
Sue Salvesson, 907-586-7228.

**SUPPLEMENTARY INFORMATION:** The domestic groundfish fisheries in the exclusive economic zone of the Gulf of Alaska (GOA) and the Bering Sea and Aleutian Islands management

**PERSONAL COMMENTS:**

has been the responsibility of the captain. This new rule transfers the responsibility for reporting to the observer.

Industry is presently using electronic reporting of observer data. NMFS's statement that a new program is required because of "fax" reporting is inaccurate and misleading. Very few boats continue to use fax today.

NMFS should provide industry with specific examples of improvements and new 'tools' that have been developed for use with the agency that will allow for improved efficiency in fisheries management.

Originally the effective date was January 1, 1997. No date should be set before NMFS completes testing and finalization of their new software and infrastructures. Industry suggests that a third party be allowed to evaluate the 'beta' program and also to quantify how NMFS is prepared to process the 'raw' data.

The EA/RIR was recently reviewed. There are items which are considered inaccurate or do not provide the complete details and do not support the conclusions drawn. A separate discussion will provide information about these concerns.

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area (BSAI) are managed by NMFS in accordance with the Fishery Management Plan for Groundfish of the Gulf of Alaska and the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (FMPs). The FMPs were prepared by the North Pacific Fishery Management Council under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The FMPs are implemented by regulations that appear at 50 CFR part 679.

Timely communication between the fishing industry and NMFS is a critical element of successful fisheries management. Observers submit reports of catch to the NMFS Observer Program Office. These reports are crucial to effective inseason management of the groundfish quotas and prohibited species bycatch allowances. At present, most observer reports are submitted by fax and often must be resubmitted to obtain a readable copy. Catch data from these reports must then be verified and keypunched into an inseason management database. As a result, transmission and processing of faxed reports is costly, time-consuming, and can be inefficient for both NMFS and the industry. Because of the method by which reports are currently submitted and the burden of data entry, information available for management is often not current with the real-time status of the fishery. Electronic communication of observer reports would greatly improve management efficiency and reduce the costs associated with report submission and processing. Implementation of requirements for hardware and software that would support electronic transmission of inseason data in a more timely and efficient way would benefit both NMFS and the industry. This rule requires each processor vessel subject to observer coverage under regulations at Sec. 679.32(c) and Sec. 679.50 to have the following equipment: A personal computer (PC) in working condition that contains a full 486DX 66Mhz or greater capacity processing chip, at least 16 megabytes of

**PERSONAL COMMENTS:**

All vessels effected by this proposed rule have communication equipments that permits worldwide communications. Modem-to-modem, point-to-point communications are NOT required to insure accuracy or security.

Of the 167 or so vessels required to have some form of observer coverage, 72 vessels use the NMFS Datamax electronic reporting software and report using data file transfers with cc:MAIL. Further analysis by catch weight shows that the 72 vessels mentioned are responsible for catching over 93% of all FMP groundfish. Observer data has been electronically reported to NMFS for the past four years. Industry has invested over \$500,000 in cc:MAIL equipment and software, not to mention the even larger burden in training staff and supporting observers. NMFS has not demonstrated to industry that they are any better prepared today to launch this program than four years ago when voluntary reporting started. Industry has cooperated with NMFS by providing electronic data but there appear to be problems with the processing of the electronic information. NMFS must address this first - especially before changing to 'raw' data reporting which is forecast to increase the quantity of data up to 20 times over the former 'summary' data.

**EQUIPMENT WILL NOT INSURE**

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RAM, at least 75 megabytes of free hard disk storage, DOS version 6.0 or a successor version of the DOS operating system, Windows 3.1, 3.11, or Windows95 (or equivalent and

compatible software approved by NMFS), a 3.5-inch floppy disk drive, a 28.8kbs Hayes-compatible modem (except with the Standard C units) and a mouse. For vessel processors, the above-mentioned equipment must be connected to either an INMARSAT Standard C unit or a communication device that provides a point-to-point modem connection to the NMFS host computer and supports one or more of the following protocols:

**PERSONAL COMMENTS:**  
***DELIVERY OF DATA.***

*Success during the past four years was the result of allowing industry the flexibility to select the best way to deliver the message even if some selected fax. Unless NMFS allows industry to use ALL communications equipment capable of delivering a properly formatted data file it is probable that new technology will be sidelined and we will be forced to continue to use the already 10 year old Inmarsat system.*

The word modem is actually a compound acronym taken from the words Moulator and DEModulator. The modem converts the bits of digital data coming from the computer into analog audio for transmission over amplified circuits. The reverse happens with the receiving modem, namely it converts the audio tones back into electrical digital bits. This process allows computers to "talk" to each other over analog circuits. Since all communications will be digital by the year 2000, we should be planning ahead and not making rules based on old and outdated technology. New communications technology, even that which is used by 10 year old Inmarsat Standard C does not use modems, but uses codecs, a digital type of modem because of better features, namely lower costs. Mandating the use of 'modems' will severely limit new communications since it will undoubtedly be a new digital technology. Again - NMFS should allow ANY communications system that can delivery to NMFS useable data. Point-to-point is a communications circuit designed to provide service from one specific point (i.e. a vessel) to another (i.e. NMFS communication gateways). Exempting the technology of Inmarsat Standard C unit which does not use a 'modern point-to-point connection', but rather is a 'store-n-forward' technology is totally arbitrary since it is an advanced technology plus many other technologies exist - some at a much lower cost than Standard C. Delivery of useful data should

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ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34. Those processors that use an INMARSAT Standard C unit are not required to have the 28.8kbs Hayes-compatible modem. NMFS is including the Standard C unit in the list of acceptable requirements at the present time to accommodate those vessels that are currently using Standard C communications. However, the Standard C unit does not conform to the requirement to have a point-to-point modem connection; therefore, this unit may be removed from the list of required equipment in the future once less expensive point-to-point methods become available. NMFS expects the Standard C transmission costs to be approximately \$60-80 per week, based on a compressed 11KB file. The 486DX computer equipment specified above is the minimum requirement; however, greater processing capacity is preferable and would run the NMFS-supplied software more efficiently.

Equipment that differs from these specifications would not operate the data-entry software that allows electronic data transmission to NMFS.

#### **PERSONAL COMMENTS:**

be keep as the primary goal - not approval or exemption of communications equipment. Allow ALL communication types that can delivery useable data. The delivery of data should be the basis for compliance - not having 10 year old Inmarsat Standard A or a 28.8kpbs analog modem.

Basically these numbers are an attempt to set communication requirements. 'ITU' standards for the International Telecommunications Union (the new CCITT International Telegraph and Telephone Consultive Committee renamed ITU). The V.22 basically refers to a 1200 bits per second duplex modem standardization for use in general switched telephone networks and point to point 2 wire leased telephone type circuits

***IN NMFS HASTE TO MEET A DEADLINE THEY MISSED THE V.21 STANDARD which is a 300 bits per second standard - understandable slow but modems can 'fall-back' to 300bps during noise to make a connection. V.21 should be allowed - especially over poor grade circuits that are all to common between ships at sea and shore links.***

V.22bis is 2400 bits per second

V.32 is 9600 bits per second and specifically identifies the modulation and trellis coding.

V.32bis is 14400 bits per second and since it is a subset of the V.32 specification also includes 12000, 9600, 7200 and 4800bps.

V.34 uses 28800 bits per second specifying modulation rate, type and coding etc. The important point is that V.34 modulation is not operative over Inmarsat regular circuits because of limited bandwidth. Additionally the V.34 adaptive feature causes additional problems with a satellite signal latency and echo. Bottom line is do not use a V.34 modem with Inmarsat circuits.

Equipment setup and configuration are crucial to the success of this program. I don't believe NMFS has adequate staff levels or approved



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**FEDERAL REGISTRY PUBLICATION:**

Not all computer hardware and software and satellite systems are compatible, and it would be economically and practically inefficient to set up multiple systems to transmit and collect the same information. For shoreside processors, the required equipment must be connected to a communication device that provides point-to-point modem connection to the NMFS host computer and supports one or more of the following protocols:

ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34.

The above-specified hardware requirements for shoreside and at-sea processors do not apply to processors that do not process groundfish.

NMFS published a notice of proposed rulemaking on August 31, 1995 (60 FR 45393), which specified proposed hardware and software equipment that processors subject to observer coverage would be required to provide for use by the observer. Reasons for these requirements were addressed in that notice. Public comment was invited through September 29, 1995. One letter of comments was received and is summarized and responded to below in the "Response to Comments" section.

NMFS has made the following changes to the final rule from the proposed rule: NMFS has modified the final rule to include performance based standards for electronic communication instead of requiring specific satellite communication units. This change is in response to general industry comments received at a meeting on August 8, 1996. The proposed rule required INMARSAT Standard A, B, or C units.

**PERSONAL COMMENTS:**

budgets to support the industry. If the rule was OPEN SYSTEMS then industry would look to public service providers for support but since NMFS is setting the requirements they will be expected to support these 'required' equipments.

Multiple 'gateways' would NOT cost additional funds since they already exist, namely:

1. cc:MAIL - industry full vested and using
2. Internet - NMFS fully equipped and using
3. JFT - gateway online
4. Bulletin Board System - online and available

NMFS met with industry in Seattle in August and again in October. Industry recommended against the specific hardware approach for numerous reasons on both meeting occasions. NMFS continues to be uncooperative and not providing industry with answers to its questions and recommendations.

Why is cc:MAIL being scrapped for JFT? How will new technology be allowed and evaluated? Who will have authority to allow new technology? Are but a few of the unanswered questions. There are more questions unanswered.

Where are the performance based standards? Industry understands that NMFS has made specific equipment, i.e. satellite communication units (namely Inmarsat, not Oceancell, nor Planet1 or any of the 12 new communications systems planned over the next 4 years as acceptable) Inmarsat equipment appears to be mandatory. NMFS has failed to recognize the new digital HF data radio technology pioneered

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Under the final rule, Standard A and B units would conform to the performance standards and are still acceptable. As mentioned above, NMFS will continue to accept the Standard C unit until inexpensive point-to-point technology is available.

**PERSONAL COMMENTS:**

by Globe Wireless Radio with 11 HF stations all over the world that allow digital HF radio communications including binary file transfers to any destination. This is truly a wonder of new digital signal technology.

NMFS has determined that some updates to the computer equipment are necessary. The new requirements specify increased RAM and hard disk storage space, and update the DOS operating system to version 6.0, as well as including Windows95 in the list of acceptable operating systems.

NMFS has also removed some software requirements that were included in the proposed rule. NMFS intends to take a more graduated approach to implementation of the electronic hardware and software intended to support the Observer Program operations. The hardware and some software requirements will be established in this final rule for mid 1997. The Observer Program Office intends to work with the industry to install the observer data entry software and communications package. After all of the software has been installed, NMFS intends to initiate rulemaking later in 1997 to require full function compliance with the Observer Program data entry and electronic communications software. This approach will provide both NMFS and the industry ample time and opportunity to resolve any unexpected operational details.

NMFS intends to continue to explore new technology to improve electronic

What additional requirements are possible and anticipated?

*Likewise, there should be a provision that gives discretion to the Regional Director to allow any future technology for electronic reporting use without requiring a regulatory review and or revision process.*

Internet is already used by NOAA vessels and NMFS for communications and should be allowed

**FEDERAL REGISTRY PUBLICATION:**

communications, including the future use of the Internet. NMFS encourages the public to provide information on the feasibility of applying new communications technology to at-sea operations, as well as means to facilitate shore-side transmission of data.

This final rule amends a final rule implementing a revised observer coverage plan that was published in the Federal Register on November 1, 1996 (61 FR 56425).

**Response to Comments Comment:** The requirement for electronic reporting will force the vessel owners to spend in excess of \$30,000 to purchase and install the satellite system for the sole purpose of submitting observer data to NMFS. The cost to install the system is significant and will cause economic hardship for the vessel. NMFS is urged to reconsider this requirement for 1995.

**Response:** In response to industry comments, NMFS has modified the final rule from the proposed rule to specify certain performance standards, outlined in the preamble to this rule, for the communication technology instead of requiring specific INMARSAT technology. The performance standards encompass an INMARSAT Standard A or B satellite

**PERSONAL COMMENTS:**

and implemented immediately to reduce the burden on all reporters. Internet accounts cost approximately \$20.00 a month for 24 hours a day continuous use. Long distance dialup telephone charges to use a modem-to-modem point-to-point link will easily exceed the Internet access flat fee.

**SECURITY** - by using cc:MAIL with new individual user passwords and the Internet with S/MIME or DES, RSA public key, all messages could be authenticated and encrypted with recognized industry security. JFT allows for only a 3 letter password, <1000 combinations to break the password into a JFT site. JFT security is unacceptable. Additionally, Inmarsat is not secure. Groups of utility radio listeners and satellite listeners are not posting to the Internet monitored communications traffic - including data transmissions as part of their 'hobby'. Without the use of recognized security standards you can expect communications to be published to the public. Just yesterday, this 'hobby' group published on the Internet private communications between the MIR space station crew and a U.S. astronaut regarding a private matter.

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communication unit for transmission of observer data from at-sea vessels. Alternatively, the industry could use other methods that conform to the performance standards. On an interim basis, vessels will also be permitted to use the INMARSAT Standard C unit. By establishing performance standards, NMFS has potentially increased the scope of acceptable units and provided more flexibility to the industry. Currently, however, approximately 75 percent of the affected industry has either an INMARSAT A or C unit. For those vessels that choose to purchase an INMARSAT A unit, the cost would be approximately \$30,000; however, an INMARSAT C unit would cost from \$4,000 to \$6,000.

**PERSONAL COMMENTS:**

Comment 2: Does the current NMFS computer system have all of the problems worked out and will it accept all of these transmissions?

Response 2: NMFS has been receiving data transmissions from some groundfish processor vessels via satellite communications for several years. Vessels that have these communications systems voluntarily transmit data electronically, because it is a cheaper and more effective means of data submission. NMFS has also implemented regulations requiring certain processor vessels that participate in specified fisheries to provide satellite communication capability for transmission of observer data (60 FR 34904, July 5, 1995). These requirements provide a reliable and efficient means of submitting and receiving observer data for timely inseason management of groundfish fisheries. NMFS also intends to implement the hardware and some software requirements first and allow gradual implementation of the data entry software and communications package to provide the opportunity for any potential problems to be resolved.

Classification

The Assistant General Counsel for Legislation

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and Regulation, Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this rule would not have a significant impact on a substantial number of small entities. Although this regulation would affect a substantial number of small entities, such as a number of shoreside processors, the effects on those processors are not anticipated to cause a reduction in annual gross revenues by more than 5 percent, have annual compliance costs that increase total costs of production by more than 5 percent, or impose compliance costs for small entities that are at least 10 percent higher than compliance costs as a percent of sales for large entities. This rule would require the processors to obtain some computer hardware and software, which many of them already have. They would also incur costs to transmit data, but the cost is estimated to be small. One comment was received concerning the issue of the cost of the required equipment. NMFS has responded to this issue above. As a result, a regulatory flexibility analysis was not prepared. This rule contains a collection-of-information requirement subject to the Paperwork Reduction Act (PRA). The collection of this information has been approved by the Office of Management and Budget, OMB Control number 0648-0307. NMFS estimates an installation time of approximately 9-13 hours for the satellite communication units. Data transmission time is estimated at no more than ten minutes for each observer report. Send comments regarding these burden estimates or any other aspect of the data requirements, including suggestions for reducing the burdens, to NMFS and OMB (see ADDRESSES). Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB control number. This rule has been

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**FEDERAL REGISTRY PUBLICATION:**  
 determined to be not significant for purposes of  
 E.O. 12866.

**PERSONAL COMMENTS:**

List of Subjects in 50 CFR Part 679  
 Fisheries, Reporting and recordkeeping  
 requirements.

Dated: November 25, 1996.

Gary Matlock,  
 Acting Assistant Administrator for Fisheries,  
 National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR  
 Part 679 is amended as follows:

**50 CFR CHAPTER VI**

**PART 679—FISHERIES OF THE  
 EXCLUSIVE ECONOMIC ZONE OFF  
 ALASKA**

1. The authority citation for part 679 continues  
 to read as follows:

Authority: 16 U.S.C. 773 et seq., 1801 et seq.

2. In Sec. 679.50, paragraphs (f)(1)(iii)(B)(1)  
 and
3. (f)(2)(iii)(B)(1) are revised to read as  
 follows:

Sec. 679.50 Groundfish Observer Program  
 applicable through December 31, 1997.

\* \* \* \* \*

(f) \* \* \*

(1) \* \* \*

(iii) \* \* \*

(B) \* \* \*

Hardware and software. Providing for use by the  
 observer a personal computer in working  
 condition that contains a full 486DX 66Mhz or  
 greater capacity processing chip, at least 16  
 megabytes of RAM, at least 75 megabytes of free  
 hard disk storage, DOS version 6.0 or a  
 successor version of the DOS operating system,  
 Windows 3.1, 3.11, or Windows95 (or equivalent  
 and compatible software approved by NMFS), a

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mouse, and a 3.5-inch floppy disk drive. The computer equipment specified in this paragraph (B) must be connected to either an INMARSAT Standard C unit capable of transmitting binary files or a communication device that provides a point-to-point modem connection to the NMFS host computer and supports one or more of the following protocols: ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34. Those processors that use other than an INMARSAT Standard C unit must have at least a 28.8kbs Hayes-compatible modem. The above-specified hardware and software requirements do not apply to processors that do not process groundfish.

\* \* \* \* \*

- (1) Hardware and software. Making available for use by the observer a personal computer in working condition that contains a full 486DX 66Mhz or greater capacity processing chip, at least 16 megabytes of RAM, at least 75 megabytes of free hard disk storage, DOS version 6.0 or a successor version of the DOS operating system, Windows 3.1, 3.11, or Windows95 (or equivalent and compatible software approved by NMFS), at least a 28.8kbs Hayes-compatible modem, a mouse, and a 3.5-inch floppy disk drive. The computer equipment specified in this paragraph (B) must be connected to a communication device that provides a point-to-point modem connection to the NMFS host computer and supports one or more of the following protocols: ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34. The above-specified hardware and software requirements do not apply to processors that do not process groundfish.

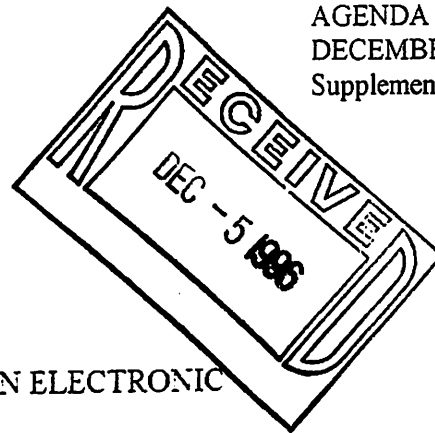
[FR Doc. 96-30635 Filed 11-29-96; 8:45 am]  
BILLING CODE 3510-22-P

**PERSONAL COMMENTS:**

Thank you for your consideration and review.

Douglas Pohl

NEWS RELEASE (96-141)                      December 4, 1996  
Steven Pennoyer                              9:00 a.m.  
907-586-7221                                  For Immediate Release



## NMFS REQUIRES GROUND FISH PROCESSORS TO OBTAIN ELECTRONIC COMMUNICATION EQUIPMENT

The National Marine Fisheries Service (NMFS) announces a July 1, 1997 effective date for regulations that will require groundfish processors that are subject to observer coverage to have certain electronic communication equipment, according to Steven Pennoyer, Administrator, Alaska Region, NMFS.

The equipment described below is intended for use by observers. Electronic submission of observer data is necessary to reduce both the time and expense of collecting fishery information by providing real-time data and improving the overall efficiency of fisheries management.

Each catcher/processor or mothership processor vessel that is required to carry a NMFS-certified groundfish observer must have the following equipment: A personal computer (PC) in working condition that contains a full 486DX 66Mhz or greater capacity processing chip, at least 16 megabytes of RAM, at least 75 megabytes of free hard disk storage, DOS version 6.0 or a successor version of the DOS operating system, Windows 3.1, 3.11, or Windows95 (or equivalent and compatible software approved by NMFS), a 3.5-inch floppy disk drive, a 28.8kbs Hayes-compatible modem (except with the Standard C units) and a mouse. For vessel processors, the above-mentioned equipment must be connected to either an INMARSAT Standard C unit or a communication device that provides a point-to-point modem connection to the NMFS host computer and supports one or more of the following protocols: ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34. Those processors that use an INMARSAT Standard C unit are not required to have the 28.8kbs Hayes-compatible modem.

Each shoreside processor required to obtain NMFS-certified observer coverage must have the required computer equipment connected to a communication device that provides point-to-point modem connection to the NMFS host computer and supports one or more of the following protocols: ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34.



This press release provides notice that a regulatory change has occurred. Do not rely upon it to guide you in complying with the regulatory change. To obtain information concerning the new regulatory requirements, consult the applicable regulation published in the Federal Register, or contact the Fisheries Management Division, NMFS, 907-586-7228.

## ELECTRONIC REPORTING

Reference Federal Register Vol. 61, No. 232

Dated December 2, 1996

Page 63761

### Recommendations for revision to the proposed RULE:

1. ... a full 486DX 66 Mhz. or greater capacity processing chip...

What is meant by "FULL" as opposed to empty or partial?

What is meant by "CAPACITY"? Do you mean a "central" processing chip or is this something to do with 32, 16 or 8 bit processing?

**Revised to read:** ...a minimum 486DX2/66 MHz. CPU chip or greater.

2. ... or Windows95 (or equivalent and compatible software approved by NMFS)....

Where in this RULE are the provisions for the approval/disapproval of software & hardware? Or who has the authority to allow new software, equipment or technology? We do not want to be waiting for a regulatory amendments that could require years for approval. Standards of the day should automatically be allowed without approval so long as electronic reporting can be accomplished. Without specific language or details in this RULE as to the approval or disapproval process and or designated party. standards of the day will be assumed to apply.

**Revised to read:** ...or Windows95 (or equivalent and compatible software operating system(s) of the day. Additionally, any hardware shall be equivalent and compatible for binary file transfer),...

3. ... must be connected to either an INMARSAT Standard C unit capable of transmitting binary files...

Isn't the bottom line that whatever communications equipment is used that ALL communications equipment be capable of binary file transfer? If this language was added and point-to-point modem connection was removed, then new digital mode communication equipments could be used without the trouble of a regulatory approval process. The act or process of delivery to NMFS of the data files (binary data) is what we are talking about accomplishing with electronic reporting, not all of this technical point-to-point modem connection with ITU V.34 etc. You should be in compliance by delivering the binary data file to NMFS.

The following marine communication equipments currently supports binary file transfer:

Inmarsat: Standard A, Standard B, Standard C and Standard M

OceanCell, Planet One and Digital Marine Radio

In the next 3-4 years the following worldwide communications systems are scheduled to be operational:

Teledesic, Iridium, GlobalStar, Odyssey, Aries, Elliso, ICO and Starwire.

**Revised to read:** ...must be connected to a communications device capable of transmitting binary files to the NMFS host computer and supports...

4. ...one or more of the following protocols: ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or IYU V.34. Those processors that use other than an INMARSAT Standard C unit must have at least a 28.8kbs Hayes-compatible modem...

All new communications will be digital. Standard C is digital. Standard M is digital. By the year 2000 all major communication systems will be digital. Digital mode is definitely how we will be communication in the future. Modems are no longer necessary and will be replaced with "software" according to recent announcements by

Motorola which will be releasing "software" modems. What is important is that we do not lock ourselves into this old "modem" technology.

The language "*at least* a 28.8kbs Hayes-compatible modem" is misleading since other slower and older ITU V.xx protocols are specified. The words "*at least*" indicates "not less than" or "not lower than". Is the minimum modem speed necessary? If so, then V.21 should be considered since it complies with the "fall-back" V.xx protocol schemes.

**Revised to read:** ...one or more of the following protocols: ITU V.21, ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34. The above specified hardware and software requirements do not apply to processors that do not process groundfish.

Same revisions as noted above apply to the next section (2) (iii) (B) (1)...

### **Benefits of electronic reporting:**

- Improved inseason management due to:
  - More timely & complete reports from industry
  - Missing/late reports identified quickly
  - Reports processed automatically & ready for use
- Decrease the magnitude of quota overages and underages
- Fewer premature closures. Fewer short, expensive, and hard to manage clean-up fisheries
- Report transmissions will cost less than the current FAX based system
- The amount of time spent maintaining NMFS logs and forms will decrease (when phase 2 is implemented)
- Direct two-way messaging between NMFS and at-sea processors will be available
- Logbook data will be archived electronically, making it available to stock biologists and others
- NMFS will save more than \$100,000 per year in printing costs

## INDUSTRY ELECTRONIC REPORTING SYSTEM

**PHASE 1:** Weekly Production Report, Daily Production report, BEGIN/CEASE message

Develop and test in 1996 and 1997

Active NMFS role in installation & training 1997

Implement phase 1 in 1998

**PHASE 2:** Logbooks, Product Transfer Report, Vessel Activity Report

Develop and test in 1997 & 1998

Installation & training in 1998

Implement phase 2 in 1999

Items of interest/concern	Status
Required computer	Initially a Pentium, now a 486
Communications equipment	Initially required at-sea processors to use the Inmarsat network. Changed to any system capable of modem-to-modem connections, STD-C units allowed as an exception.
Cost concerns	For regional reports costs should be \$4 to \$8 per report for at-sea processors. For observer reports approximately \$60 for a week's worth of observer data (using STD-C).
EMAIL software, commercial EMAIL services, internet communications	Initial system will focus on basic point to point communications. Ability to receive from Email & service providers will be incorporated later. Use of the Internet a possibility in future.
Home office oversight/QC	Regional reporting system able to send files to home office prior to report deadlines.
Importing & Exporting data	Partially complete, will require industry to format files for importing to the NMFS software.
Third-party software	<p>Problematic for three main reasons:</p> <ol style="list-style-type: none"> <li>1. End product will be a comprehensive NMFS reporting system with logbooks as the cornerstone.</li> <li>2. Quality control. System will include data validation and drop-down lists for the users to ensure that all field are filled out and that the codes are correct.</li> <li>3. Multiple electronic reporting systems would be difficult to audit and enforce.</li> </ol>

**DRAFT FOR PUBLIC REVIEW**

**REVISED ENVIRONMENTAL ASSESSMENT/REGULATORY IMPACT REVIEW  
FOR A REGULATORY AMENDMENT TO REQUIRE GROUND FISH  
PROCESSORS IN THE GULF OF ALASKA, BERING SEA, AND ALEUTIAN ISLANDS TO  
UTILIZE ELECTRONIC RECORDKEEPING AND REPORTING  
FOR NMFS REQUIRED DOCUMENTS**

Prepared by  
Nick Hindman  
National Marine Fisheries Service  
Alaska Regional Office  
*December 6, 1996*

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## EXECUTIVE SUMMARY

Many of the groundfish fisheries off Alaska have become difficult for NMFS to manage under the current recordkeeping and reporting system. The weekly harvest reporting cycle, coupled with the time delay caused by manual data entry, often proves to be inadequate for gathering real-time data for fisheries management decisions. Quota monitoring problems are frequently exacerbated by missing or late harvest reports.

Quota overages occur and are contrary to the NMFS mandate to manage fisheries within the total allowable catch (TAC) amounts established annually by the North Pacific Fishery Management Council.

Quota underages frequently result in lost economic opportunities for the groundfish industry. Depending on the tonnage remaining in the annual quota, NMFS may not reopen fisheries that closed prematurely because the amount of fish left in the quota is too small to manage without the risk of exceeding the TAC. With the exception of IFQ fisheries and the current vessel moratorium, NMFS has no control on the number of vessels that can participate in a given groundfish fishery.

This Environmental Assessment/Regulatory Impact Review (EA/RIR) addresses a proposed regulatory amendment that would require groundfish processors in the Bering Sea, Aleutian Islands, and Gulf of Alaska to utilize an electronic recordkeeping and reporting system for NMFS required documents. The two alternatives discussed in this EA/RIR are:

**Alternative 1: No Action:** This would continue the current system of recordkeeping and reporting in which processors maintain paper logbooks and submit NMFS reports via conventional methods (i.e. fax and telex transmissions).

**Alternative 2:** Require groundfish processors that are subject to observer coverage to use NMFS-supplied software to electronically record harvest and processing activities on computer equipment. Conventional logbooks and associated NMFS reports would be replaced by electronic versions. Processors would be required to transmit in-season NMFS reports using Inmarsat Standard-C units or communications devices that provide a point-to-point modem connection. All processors using the electronic reporting system would be required to have a computer-operated printer to make paper copies of electronic logbook pages and transmitted reports at the processing site.

The NMFS electronic reporting system would be implemented in two stages. Phase 1 would consist of electronic versions of the daily production, weekly production, and check-in/check-out reports and would be distributed to the groundfish processing industry for voluntary use in early 1997. Legal implementation of phase 1 would take place on January 1, 1998. Phase 2 would consist of electronic logbooks, vessel activity reports, and product transfer reports. These will be developed in 1997 and 1998 with full legal implementation expected in 1999. During the development of phase 2 software NMFS will consult with the Alaska Department of Fish and Game and other agencies and organizations in an effort to coordinate data collection requirements and minimize duplication of effort.

Alternative 2 would strengthen the NMFS inseason management system by improving the timeliness and completeness of weekly production reports and begin/cease messages. NMFS software would be designed to reduce the number of common entry-level errors and automatically indicate missing

processor reports. Fisheries managers would receive catch data electronically, making them available two working days earlier in the week than the current manual data entry system. A more accurate and real-time account of the harvest would promote better management decisions.

Adopting Alternative 2 would result in significant reductions in the amount of money spent by NMFS to print and distribute logbooks and for data keypunch personnel. In addition, logbook data would be archived electronically making them readily available to stock biologists and economists.

Industry would benefit from fewer premature closures and the subsequent loss of revenues. The amount of time and effort spent by industry personnel filling out NMFS logbooks and inseason forms would decrease from current levels when electronic logbooks (phase 2) are distributed. Electronic logbooks would summarize the processor's activities and automatically produce daily and weekly production reports for submission to NMFS.

Alternative 2 would reduce industry's transmission costs, especially for at-sea processors. Compressed electronic files would require fewer characters and take less time to transmit than faxed reports. The savings would largely accrue during the satellite portion of the transmissions.

At its June 1996 meeting the North Pacific Fishery Management Council recommended that NMFS meet with interested industry members and work with them on software development and implementation ideas. At the September 1996 meeting the Council delayed final action on electronic reporting to allow more time for the industry/NMFS group to address some of the specific issues that have been identified. These include:

- Industry concerns about the computer and communications equipment specified in a separate regulatory action in preparation during the summer and fall of 1996.
- Creating a NMFS software program that interfaces with software systems currently used by the processing industry.
- Investigate methods to minimize duplication of effort with other agency data collection systems.
- Minimize file transmission costs by incorporating file compression and/or encoding functions.
- Minimize file transmission costs by sending files to NMFS and processing company home offices via a single satellite transmission (multiple addressing).
- Phase-in implementation of the NMFS system with small target groups instead of the industry as a whole.

To date, two industry/agency meetings have taken place in Seattle to discuss electronic reporting. Both meetings were largely taken up by concerns relating to the "hardware" rule that requires groundfish processors to have computer and communications equipment on site and to provide observers access to the equipment to transmit observer data. As a result NMFS revised the hardware requirements in the final hardware rule. Changes to the rule allow more flexibility in the choice of communications systems, require a 486 rather than Pentium processor (as a minimum), and delay the implementation date until July 1, 1997.

None of the alternatives are expected to result in a "significant regulatory action" as defined in E.O. 12866 or significantly affect the quality of the human environment within the meaning of the Environmental Policy Act.

## **1.0 INTRODUCTION**

The groundfish fisheries in the Exclusive Economic Zone (EEZ) (3 to 200 miles offshore) off Alaska are managed under the Fishery Management Plan for the Gulf of Alaska Groundfish Fishery and the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands. Both fishery management plans (FMP) were developed by the North Pacific Fishery Management Council (Council) under the Magnuson Fishery Conservation and Management Act (Magnuson Act). The Gulf of Alaska (GOA) FMP was approved by the Secretary of Commerce and became effective in 1978 and the Bering Sea and Aleutian Islands Area (BSAI) FMP became effective in 1982.

Actions taken to amend FMPs or implement other regulations governing the groundfish fisheries must meet the requirements of Federal laws and regulations. In addition to the Magnuson Act, the most important of these are the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), Executive Order (E.O.) 12866, and the Regulatory Flexibility Act (RFA).

NEPA, E.O. 12866 and the RFA require a description of the purpose and need for the proposed action as well as a description of alternative actions which may address the problem. This information is included in Section 1 of this document. Section 2 contains information on the biological and environmental impacts of the alternatives as required by NEPA. Impacts on endangered species and marine mammals are also addressed in this section. Section 3 contains a Regulatory Impact Review (RIR) which addresses the requirements of both E.O. 12866 and the RFA that economic impacts of the alternatives be considered. Section 4 pertains to the Initial Regulatory Flexibility Analysis (IRFA) required by the RFA which specifically addresses the impacts of the proposed action on small businesses.

This Environmental Assessment/Regulatory Impact Review (EA/RIR) addresses a proposed regulatory amendment that would require groundfish processors in the Bering Sea, Aleutian Islands, and Gulf of Alaska to utilize an electronic recordkeeping and reporting system for NMFS required documents.

### **1.1 Purpose of and Need for the Action**

The Alaska Region of the National Marine Fisheries Service is responsible for managing groundfish fisheries in Federal waters in the Bering Sea, Aleutian Islands, and the Gulf of Alaska. In recent years the harvesting capacity of the commercial fishing industry has increased to the point that many groundfish fisheries are over-capitalized and seasons have become progressively shorter from one year to the next. At times the current NMFS recordkeeping and reporting system is unable to keep up with the pace of these fisheries and NMFS managers find that the available in-season data is not timely or accurate enough to manage fisheries adequately. In recent years incomplete and/or inaccurate harvest data has led to fisheries closures that were too late, causing quota overages; or too early, causing fisheries to close before quotas had been reached.

The purpose of this action is to require groundfish processors that are subject to observer coverage to use a NMFS-provided electronic recordkeeping and reporting software system on their computer and communications equipment. The use of this software, coupled with file transmissions using satellite and terrestrial communications equipment, is expected to provide the following benefits to NMFS and the commercial groundfish industry.

- More timely reports would improve inseason fisheries management.

- Missing and/or late reports would be identified quickly.
- NMFS would save more than \$100,000 in annual printing costs for logbooks.
- Report data would be processed automatically without the time and expense of manual entry.
- Logbook data would be archived electronically, making them available to stock biologists.
- Transmission costs paid by industry would be lower than those of the current system.
- The amount of time spent by industry personnel maintaining NMFS logbooks and reports is expected to decrease.
- Direct two-way messaging between NMFS and at-sea processors would be available for the first time.

## 1.2 Alternatives Considered

1.2.1 Alternative 1: No Action: This alternative would continue the current system of recordkeeping and reporting in which processors maintain logbooks and submit NMFS reports via conventional methods.

1.2.2 Alternative 2: Require groundfish processors that are subject to observer coverage to use NMFS-supplied software to electronically record their harvest and processing activities on computer equipment. This requirement would apply to all 100% and 30% observer coverage processors throughout a given calendar year in which they were required to obtain observer coverage. Conventional logbooks and associated NMFS reports would be replaced by electronic versions. Processors would be required to use the computer and communications equipment specified in regulations pertaining to the Groundfish Observer Program published in the Federal Register on December 2, 1996 (61 FR 63759). In addition, processors using the electronic reporting system would be required to have a computer-operated printer to make printed copies of electronic logbook pages and transmitted reports at the processing site.

Catcher vessels, buying stations, and groundfish processors that are exempted from observer coverage (i.e. those processors that are not required to have an observer within an entire calendar year) would not be affected by this amendment and would continue to use paper versions of the logbooks and associated reports.

At its June 1996 meeting the North Pacific Fishery Management Council recommended that NMFS meet with interested industry members and work with them on software development and implementation ideas. At the September 1996 meeting the Council delayed final action on electronic reporting to allow more time for the industry/NMFS group to address some of the specific issues that have been identified. These include:

- Industry concerns about the computer and communications equipment specified in a separate regulatory action in preparation during the summer and fall of 1996.
- Creating a NMFS software program that interfaces with software systems currently used by the

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- Investigate methods to minimize duplication of effort with other agency data collection systems.
- Minimize file transmission costs by incorporating file compression and/or encoding functions.
- Minimize file transmission costs by sending files to NMFS and processing company home offices via a single satellite transmission (multiple addressing).
- Phase-in implementation of the NMFS system with small target groups instead of the industry as a whole.

To date, two industry/agency meetings have taken place in Seattle to discuss electronic reporting. Both meetings were largely taken up by concerns relating to the "hardware" rule that requires groundfish processors to have computer and communications equipment on site and to provide observers access to the equipment to transmit observer data. As a result NMFS revised the hardware requirements in the final hardware rule. Changes to the rule allow more flexibility in the choice of communications systems, require a 486 rather than Pentium processor (as a minimum), and delay the implementation date until July 1, 1997.

NMFS proposes to implement the industry electronic reporting system in two phases; the first would be the deployment of electronic software to record and transmit weekly production reports, daily production reports, and check-in/check-out reports from the groundfish processing industry. The second phase would be to deploy electronic software versions of product transfer reports, vessel activity reports, and electronic daily production logbooks.

Field testing of the phase 1 reporting software would begin in earnest in 1997. The NMFS software would be distributed to the industry only after successfully completing a rigorous testing period. Rulemaking would be implemented in mid 1997, but the effective date of the rule would be delayed until January 1, 1998. Legal implementation for phase 1 software is scheduled for January 1, 1998.

NMFS intends to distribute and train industry personnel in the use of the NMFS electronic reporting system prior to legally requiring its use. An extended "cooling off" period will be written into the phase 1 final rulemaking language to allow an adequate amount of time for industry to learn how to use the electronic reporting system. Significant NMFS staff time will be allocated to install and train industry members in the use of the software. During this period NMFS will actively promote the voluntary use of the electronic reporting system for the following reasons:

- Active use by industry members will ensure familiarity with the system.
- Electronic reports received by NMFS will be used to monitor activity and harvest rates.
- An extended break-in period will identify any problems with the software and allow time for NMFS to make improvements.

Phase 2 software would be developed in 1997, with field testing and distribution taking place in 1997 and 1998. Legal implementation is scheduled to take place in 1999.

During the development of phase 2 software NMFS will consult with the Alaska Department of Fish and Game and other agencies and organizations in an effort to coordinate data collection requirements and minimize duplication of effort.

NMFS anticipates that long-term user support will be required to maintain a viable data collection system. The amount of staff time needed for this support is unknown at present, but the agency acknowledges the need and will commit adequate resources to the task.

### **1.3 Background**

The Alaska Region of NMFS implemented a recordkeeping and reporting system for groundfish processors in 1990. Processors are required to maintain a daily production logbook and submit periodic inseason reports to the NMFS Regional Office in Juneau, Alaska. The majority of the reports are transmitted as facsimiles via satellite or terrestrial communications systems. For at-sea processors facsimiles are relatively expensive to transmit, costing from \$6.00 to \$10.00 per page when satellite communications are used. Reports sent to Juneau are manually entered into the inseason data base and used for quota monitoring and enforcement purposes. The logbooks and reports required by NMFS and the ways in which they are used are summarized below:

#### **Daily Fishing Logbooks:**

Catcher vessels 60 feet and longer in length overall and vessels acting as buying stations are required to maintain a NMFS Daily Fishing Logbook (DFL) which contains detailed information on individual hauls, sets, and deliveries. New logbooks are distributed annually by NMFS and carbon copies of completed logbook pages are submitted to NMFS on a quarterly basis.

Industry personnel enter harvesting information in the logbooks which in turn is used by NMFS groundfish observers to reference their sample data to geographic coordinates, depths, and associated physical characteristics. NMFS Enforcement personnel use the logbooks to look for compliance with Federal regulations regarding areas fished, species kept aboard, and related Enforcement issues. Under this proposed amendment catcher vessels and buying stations would continue to use paper versions of the DFL.

#### **Daily Cumulative Production Logbooks:**

At-sea processor vessels and shore-based processors are required to maintain a NMFS Daily Cumulative Production Logbook (DCPL). In addition to fishing activities DCPLs contain information regarding deliveries (to shore-based processors and motherships), and the amount of product made at the processor on a given day. As with the catcher vessel logbook entries in DCPLs are used by observers and enforcement personnel.

#### **Weekly Production Reports:**

Weekly Production Reports (WPRs) are the primary data source used by the Alaska Region to monitor inseason groundfish quotas. WPRs are a summary of the processor's daily production logbook information and are submitted to NMFS on a weekly basis to identify that week's harvest, discard, and production activities. The Alaska Region uses industry WPRs in conjunction with groundfish observer catch reports to monitor groundfish harvests and manage quotas established by the North

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Pacific Fishery Management Council. The official week ending date for WPRs is Saturday at midnight, Alaska local time (Alt), and the reports are due at the Regional office by noon, Alt, the following Tuesday. Data entry generally takes two working days and harvest calculations are conducted on Thursday or Friday. In 1995 NMFS received 4,436 WPRs, averaging 85 per week.

#### Daily Production Reports:

Daily Production Reports (DPRs) are summaries of a processor's logbook information on harvest, discard, and production activities that are submitted to NMFS on a daily basis. On occasion, the Alaska Region will require processors to submit DPRs for fisheries that have small quotas or that are volatile in nature. The success of DPRs as a management tool has been limited due to the amount of time required for data entry of reports from a large number of processors on a daily basis. Missing and late reports have also hampered their effectiveness.

#### Check-in/check-out Reports:

Processors are required to submit a check-in report to NMFS prior to harvesting and processing groundfish taken from the US EEZ off Alaska. Check-in reports identify the location, date, and target species the processor intends to harvest. Check-in reports are used for enforcement purposes and by fisheries managers to gauge fishing effort by area and species.

Check-out reports are submitted to NMFS and indicate the location and date that fishing activities have ceased within a specific Federal reporting area. Check-in and check-out reports are generally brief, consisting of less than one-half page of information. In 1995 the Alaska Region received approximately 3,600 check-in and check-out reports from groundfish processors.

#### Other Reports:

Product Transfer Reports (PTRs) are submitted to NMFS each time raw fish or finished products leave a processing vessel or shore-based processing plant, and include the date, location of the transfer, amount of product being moved, the name of the vessel or common carrier transporting the product, and the intended first destination of the shipment. PTRs are generally used by NMFS and the US Coast Guard for enforcement purposes. Data for 1995 are not available but in 1994 NMFS received 6,600 PTRs.

Vessel Activity Reports (VARs) are required when Federally-permitted vessels cross the seaward boundary of the US EEZ (200 mile exclusive economic zone) off Alaska, or when the vessel crosses the US/Canada international boundary between Alaska and British Columbia. Vessels must record departure port, port of destination, date and time vessel will cross the US EEZ off Alaska or the US/Canada international boundary, latitude and longitude at the point of crossing, and any fish or fish products aboard.

A summary of logbooks and reports submitted to NMFS is shown in Table 1.

Table 1. Number of NMFS production logbooks and reports submitted to the Alaska Region in a calendar year (data are from 1995 except for PTRs where 1994 data are used).

	Daily Prod. Logbook	Weekly Prod. Report	Check-in/ Check-out	Product Transfer Rpt.	Vessel Activity Rpt.
At-Sea Processor	134	2703	3479	1442	380
Shore Processor	70	1551	83	5171	NA
Total	204	4254	3582	6613	380

Under Alternative 2 the vast majority of production logbooks and reports received in the future would be produced and transmitted electronically.

Related developments:

NMFS published a Final Rule in the Federal Register on December 2, 1996 (61 FR 63759) that requires Alaskan groundfish processors that are subject to observer coverage to obtain computer and communications equipment necessary for electronic transmission of observer data. The implementation date of the regulation is July 1, 1997. Processors will be required to have a personal computer in working condition that contains a full 486DX 66Mhz or greater capacity processing chip, at least 75 megabytes of free hard disk storage, at least 16 megabytes of RAM, DOS version 6.0 or a successor version of the DOS operating system, Windows 3.1, 3.11, or Windows95 (or equivalent and compatible software approved by NMFS), a 3.5-inch floppy disk drive, a 28.8 kbs Hayes-compatible modem (except vessel processors using a Standard-C unit), and a mouse. Processors will also be required to transmit observer reports using either Inmarsat Standard-C units or a communications device that provides a point-to-point modem connection that supports the following protocols: ITU V.22, ITU V.22bis, ITU V.32, ITU V.32bis, or ITU V.34.

Those processors that use an Inmarsat Standard-C unit will not be required to have the 28.8 kbs Hayes-compatible modem.

The proposed amendment presented in this EA/RIR would target the same group of processors and would utilize the computer and satellite equipment that will be used to record and transmit observer reports. In addition, this amendment would require that all processors using the electronic recordkeeping and reporting system maintain a printer at the processing site to make paper copies of all logbook pages and electronically transmitted reports. Processing vessels and shore plants that are not subject to observer coverage would continue to use the paper logbooks and reporting forms that are currently required.

Tables 2 and 3 summarize the groundfish harvest in 1995 for observed and unobserved vessels and shore-based processors. Note that the shore plants and vessels included within Alternative 2 (observed processors) accounted for over 97 and 99 percent of the annual groundfish harvest in 1995.

Table 2. Groundfish harvest for observed and unobserved shore-based processors in 1995.

	OBSERVED SHORE PLANTS	UNOBSERVED SHORE PLANTS
NUMBER OF PLANTS	25	43
TOTAL TONNAGE (METRIC TONS)	632,521	16,117
PERCENT OF TOTAL	97.5%	2.5%

Table 3. Groundfish harvest for observed and unobserved at-sea processors in 1995.

	OBSERVED VESSELS	UNOBSERVED VESSELS
NUMBER OF TRAWL VESSELS	107	0
NUMBER OF LONGLINE VESSELS	50	4
NUMBER OF POT VESSELS	11	1
TOTAL TONNAGE (METRIC TONS)	1,498,939	285
PERCENT OF TOTAL	99.9%	<0.1%

## 2.0 NEPA REQUIREMENTS: ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES

An environmental assessment (EA) is required by the National Environmental Policy Act of 1969 (NEPA) to determine whether the action considered will result in significant impact on the human environment. If the action is determined not to be significant based on an analysis of relevant considerations, the EA and resulting finding of no significant impact (FONSI) would be the final environmental documents required by NEPA. An environmental impact statement (EIS) must be prepared for major Federal actions significantly affecting the human environment.

An EA must include a brief discussion of the need for the proposal, the alternatives considered, the environmental impacts of the proposed action and the alternatives, and a list of document preparers. The purpose and alternatives were discussed in Sections 1.1 and 1.2, and the list of preparers is in Section 7. This section contains the discussion of the environmental impacts of the alternatives including impacts on threatened and endangered species and marine mammals.

### 2.1 Environmental Impacts of the Alternatives

The environmental impacts generally associated with fishery management actions are effects resulting from (1) harvest of fish stocks which may result in changes in food availability to predators and scavengers, changes in the population structure of target fish stocks, and changes in the marine ecosystem community structure; (2) changes in the physical and biological structure of the marine environment as a result of fishing practices, e.g., effects of gear use and fish processing discards; and (3) entanglement/entrapment of non-target organisms in active or inactive fishing gear.

A summary of the effects of the annual groundfish total allowable catch amounts on the biological environment and associated impacts on marine mammals, seabirds, and other threatened or endangered species are discussed in the final environmental assessment for the 1996 groundfish total allowable catch specifications.

Alternative 1 would maintain the current system of industry recordkeeping and reporting. Alternative 2, if adopted, would utilize available computer and communications technology and newly developed software to improve the timeliness and quality of inseason data to fisheries managers. Neither one of the proposed alternatives is expected to cause any adverse impacts to groundfish resources in addition to those noted in the EA for BSAI and GOA groundfish specifications.

### 2.2 Impacts on Endangered, Threatened or Candidate Species

Endangered and threatened species under the ESA that may be present in the GOA and BSAI include:

#### Endangered

Northern right whale	<i>Balaena glacialis</i>
Sei whale	<i>Balaenoptera borealis</i>
Blue whale	<i>Balaenoptera musculus</i>
Fin whale	<i>Balaenoptera physalus</i>
Humpback whale	<i>Megaptera novaeangliae</i>
Sperm whale	<i>Physeter macrocephalus</i>
Snake River sockeye salmon	<i>Oncorhynchus nerka</i>

Short-tailed albatross                      *Diomedea albatrus*

**Threatened**

Steller sea lion	<i>Eumetopias jubatus</i>
Snake R. spring and summer chinook salmon	<i>Oncorhynchus tshawytscha</i>
Snake R. fall chinook salmon	<i>Oncorhynchus tshawytscha</i>
Spectacled eider	<i>Somateria fischeri</i>

The status of the ESA section 7 consultations required to assess the impact of the groundfish fisheries on endangered, threatened, or candidate species is updated annually.

None of the alternatives are expected to have a significant impact on endangered, threatened, or candidate species.

**2.3 Impacts on Marine Mammals**

Marine mammals not listed under the Endangered Species Act that may be present in the GOA and BSAI include cetaceans, [minke whale (*Balaenoptera acutorostrata*), killer whale (*Orcinus orca*), Dall's porpoise (*Phocoenoides dalli*), harbor porpoise (*Phocoena phocoena*), Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), and the beaked whales (e.g., *Berardius bairdii* and *Mesoplodon spp.*)] as well as pinnipeds [northern fur seals (*Callorhinus ursinus*), and Pacific harbor seals (*Phoca vitulina*)] and the sea otter (*Enhydra lutris*).

None of the alternatives are expected to have a significant impact on marine mammals.

**2.4 Coastal Zone Management Act**

Implementation of either of the alternatives would be conducted in a manner consistent, to the maximum extent practicable, with the Alaska Coastal Management Program within the meaning of Section 30(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

**2.5 Finding of No Significant Impact**

None of the alternatives are likely to significantly affect the quality of the human environment, and the preparation of an environmental impact statement for the proposed action is not required by Section 102(2)(C) of the National Environmental Policy Act or its implementing regulations.

**3.0 REGULATORY IMPACT REVIEW: ECONOMIC AND SOCIOECONOMIC IMPACTS OF THE ALTERNATIVES**

This section provides information about the economic and socioeconomic impacts of the alternatives including identification of the individuals or groups that may be affected by the action, the nature of these impacts, quantification of the economic impacts if possible, and discussion of the trade offs between

qualitative and quantitative benefits and costs.

The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement from the order:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environment, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

This section also addresses the requirements of both E.O. 12866 and the Regulatory Flexibility Act to provide adequate information to determine whether an action is "significant" under E.O. 12866 or will result in "significant" impacts on small entities under the RFA.

E. O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be "significant". A "significant regulatory action" is one that is likely to:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

A regulatory program is "economically significant" if it is likely to result in the effects described above. The RIR is designed to provide information to determine whether the proposed regulation is likely to be "economically significant."

### **3.1 Alternative 1: Status Quo**

Commercial groundfish processors would continue to maintain daily production logbooks and submit periodic inseason reports to the Alaska Region of NMFS using conventional methods.

The majority of the inseason reports sent to NMFS consist of Daily Production Reports, Weekly Production Reports, and Begin/Cease messages. The transmission methods used and their approximate costs in 1996 are listed below:

Fax via conventional telephone systems:

Under the current system land-based processors fax their inseason reports to NMFS in Juneau via standard terrestrial phone systems. Depending on the carrier and time of day, costs range from \$0.19 to \$0.31 per minute. Faxing an average inseason report (e.g. a weekly production report) generally requires from one to three minutes as reported by industry members.

Single-sideband radio:

On rare occasions at-sea processors use marine single-sideband radios to contact the High Seas telephone operator and verbally report their WPR or Begin/Cease information to NMFS in Juneau or to their company's home office in Washington and Oregon. In these instances the use of the single-sideband radio is considered a backup to other types of communications. Not counting the cost of the radios (which are standard equipment aboard at-sea processors) the costs to the vessel are the high seas operator charges (\$14.93 minimum for the first three minutes, \$4.98/minute thereafter). Most NMFS inseason reports require less than three minutes to report.

Inmarsat satellite units:

The majority of the at-sea processors harvesting groundfish in Alaskan waters use Inmarsat satellite equipment (Standard-A, Standard-B, and Standard-C units) to transmit their reports as facsimiles to NMFS. Approximately 55% currently have STD-A, 24% have STD-C, and 2% have STD-B units. Inmarsat units are typically equipped with multiple communications systems; including telex, fax, electronic file transfer, and voice (Standard-A units only).

Telex:

In 1995 seven vessels used telex transmissions to report their WPR and Begin/Cease messages to NMFS in Juneau. Transmission costs vary from \$4.00 to \$5.00 per minute depending on which service the vessels subscribe to. In most cases the vessels were using Inmarsat satellite units to transmit their telex messages.

Fax:

By far the most common method used to submit industry reports to NMFS is via fax transmissions. Charges for Standard-A facsimiles are \$9.30 per minute, which includes both the satellite and terrestrial phone charges. Fax transmission times for NMFS WPRs and Begin/Cease messages range from 30 seconds to one minute. Standard-C fax charges are based on the number of characters sent and are approximately \$5.00 per 1,000 characters. WPRs range from 500 to 1,000 characters and begin/cease messages are approximately 400 to 500 characters when transmitted as facsimiles.

Electronic file transmissions:

Many of the vessels that have Inmarsat units also have Email capabilities, either connecting to a local area network (e.g., cc:Mail) or by subscribing to commercial Email services such as MCI Mail or AT&T EasyLink. At present the industry does not use these Email systems to submit inseason reports directly to NMFS.

Inmarsat satellite units are also capable of transmitting electronic files to personal computers equipped with modems. At present none of the at-sea processors uses this method to transmit NMFS reports to the Alaska Region.

### 3.2 Alternative 2:

Groundfish processors subject to observer coverage would use NMFS software to record and transmit data that is currently being reported using paper logbooks and associated inseason reporting forms. Groundfish processors would use the computers and communications equipment that are required under a separate regulatory amendment that will be implemented July 1, 1997.

During phase 1 of this proposed amendment (1997 and 1998) processors would continue to use paper logbooks but would also use the NMFS software to record and transmit three inseason reports (weekly production report, daily production report, and begin/cease report). These inseason reports would be entered at the processing site and transmitted to the Alaska Regional office as compressed electronic files.

In 1998 and 1999 phase 2 software would be deployed which would include electronic versions of product transfer reports, vessel activity reports, and daily production logbooks. The logbook software would automatically summarize daily entries and produce computer-generated daily and weekly production reports when instructed to do so. This automatic function would save industry personnel the time and effort currently spent creating daily and weekly production reports from the logbooks. Under the current system daily production reports are estimated to take 10 minutes to prepare and weekly production reports are estimated to take 18 minutes. The electronically generated versions are expected to take less than one minute to prepare.

#### Back-up reporting system:

In the event of a system failure (regardless of cause) processors will still be required to record and report their harvest and related activities to NMFS. The back-up reporting system will consist of a paper-based reporting system similar to the one currently in use.

#### Equipment costs:

The computer and communications equipment referred to in this document are required under a separate regulatory amendment that will be implemented in 1997. The costs of this equipment are not addressed in this EA/RIR.

Processors using the NMFS electronic recordkeeping and reporting software would be required to have a computer-operated printer at the processing site. The costs for a new printer with graphics capability range from \$150.00 to \$800.00. Processors would also require a minimum of 20 megabytes of hard-disk space and 8 megabytes of RAM (16 megabytes recommended) on the computer for installation of the NMFS software.

#### Transmission costs:

Table 4 summarizes the approximate costs of transmitting a weekly production report as a facsimile and as a compressed electronic file (800 characters).



Table 4. Comparison of approximate transmission costs for a weekly production report as a facsimile and as a compressed electronic file (800 characters).

	Alternative 1 fax transmission	Alternative 2 compressed electronic file
Inmarsat Standard-A	\$9.30	\$4.65 (minimum charge)
Inmarsat Standard-B	\$2.75 (minimum charge)	\$2.75 (minimum charge)
Inmarsat Standard-C	\$8.00	\$4.00
Conventional phone/modem AT&T Seattle- >Juneau	\$0.65	\$0.35

Other Satellite and Cellular Communications Systems:

Additional satellite and cellular communications systems are available in the North Pacific, and new systems are scheduled to come online in 1997 and beyond. To the best of the author's knowledge, none of these alternative systems was used by groundfish processors to transmit industry reports to the Alaska Region in 1995 or 1996.

NMFS does not intend to endorse or require the use of any specific communications network or service provider. The regulations pertaining to required communications equipment for the groundfish industry were written to provide flexibility in choosing among the multiple stems that currently exist or that are proposed in the near future.

**3.3 Administrative, Enforcement and Information Costs**

Alternative 1 would maintain the status quo in which industry uses paper logbooks and reporting forms. NMFS would continue to pay for printing and distributing logbooks (approximately \$100,000 in 1995). Inseason reports (weekly production, daily production, and begin/cease) would be transmitted to NMFS as facsimiles, requiring keypunch personnel to enter the data into the system. There would also continue to be a one or two day delay before the agency could effectively use the data for quota monitoring purposes. Under this alternative most fisheries would be managed using weekly reports, which offer lower precision than daily reports.

Alternative 2 would significantly reduce NMFS expenditures for logbook printing and manual data entry.

Inseason harvest information would be available sooner and would be more complete than reports received under the current system. The increased efficiency of the reporting process would allow more use of daily reports, improving NMFS's ability to manage harvests at the optimum yield. NMFS anticipates that developing and testing the electronic reporting system will cost approximately \$300,000 from 1995 through 1997.

NMFS proposes to take an active role in installing and training industry personnel in the use of the electronic reporting system. Existing staff would be directed to take on these duties and some of the savings realized by the use of an electronic system would likely be offset by this effort.

NMFS anticipates that long-term user support will be required to maintain a viable data collection system. The amount of staff time needed for this support is unknown at present, but the agency acknowledges the need and will commit adequate resources to the task.

This action is not expected to have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities. Therefore, this action is not expected to result in a "significant regulatory action" as defined under EO 12866.

#### **4.0 ECONOMIC IMPACT ON SMALL ENTITIES**

The objective of the Regulatory Flexibility Act is to require consideration of the capacity of those affected by regulations to bear the direct and indirect costs of regulation. If an action will have a significant impact on a substantial number of small entities an Initial Regulatory Flexibility Analysis (IRFA) must be prepared to identify the need for the action, alternatives, potential costs and benefits of the action, the distribution of these impacts, and a determination of net benefits.

NMFS has defined all fish-harvesting or hatchery businesses that are independently owned and operated, not dominant in their field of operation, with annual receipts not in excess of \$2,000,000 as small businesses. In addition, seafood processors with 500 employees or fewer, wholesale industry members with 100 employees or fewer, not-for-profit enterprises, and government jurisdictions with a population of 50,000 or less are considered small entities. A "substantial number" of small entities would generally be 20% of the total universe of small entities affected by the regulation. A regulation would have a "significant impact" on these small entities if it reduced annual gross revenues by more than 5 percent, increased total costs of production by more than 5 percent, or resulted in compliance costs for small entities that are at least 10 percent higher than compliance costs as a percent of sales for large entities.

If an action is determined to affect a substantial number of small entities, the analysis must include:

- (1) a description and estimate of the number of small entities and total number of entities in a particular affected sector, and total number of small entities affected; and
- (2) analysis of economic impact on small entities, including direct and indirect compliance costs, burden of completing paperwork or recordkeeping requirements, effect on the competitive position of small entities, effect on the small entity's cashflow and liquidity, and ability of small entities to remain in the market.

Many of the smaller businesses participating in groundfish processing operations in Alaska will not be

affected if Alternative 2 is approved. Requirements for electronic recordkeeping and reporting pertain only to processors that require some level of observer coverage within a given year. All processing vessels less than 60 feet LOA and all shore plants that produce less than 500 mt of groundfish product per month are exempted from observer coverage.

Alternative 2 would affect a substantial number of small businesses but the economic impact is expected to be an overall decrease in the costs of transmitting their required reports. Therefore, this action would not be "significant" under the Regulatory Flexibility Act.

## 5.0 SUMMARY AND CONCLUSIONS

As discussed in Section 1.1 many of the groundfish fisheries off Alaska have become difficult for NMFS to manage under the current recordkeeping and reporting system. The weekly harvest reporting cycle coupled with the time delay caused by manual data entry are proving to be inadequate for gathering real-time data for fisheries management decisions. Quota monitoring problems are further exacerbated by missing or late harvest reports.

Quota overages occur and are contrary to the NMFS mandate to manage fisheries within the total allowable catch (TAC) amounts established annually by the North Pacific Fishery Management Council.

Quota underages frequently result in lost economic opportunities for the groundfish industry. Depending on the tonnage remaining in the quota, NMFS may not reopen fisheries that closed prematurely because the amount of fish left in the quota is too small to manage without the risk of exceeding the TAC. With the exception of IFQ fisheries and the current vessel moratorium, NMFS has no control on the number of vessels that can participate in a given groundfish fishery.

Alternative 2 would strengthen the NMFS inseason management system by improving the timeliness and completeness of production reports and begin/cease messages. NMFS software would also reduce the number of common entry-level errors and automatically indicate missing processor reports. Fisheries managers would receive catch data electronically, making them available two working days earlier in the week than the current system. A more accurate and real-time account of the harvest would promote better management decisions.

Adopting Alternative 2 would result in significant reductions in the amount of money spent by NMFS to print and distribute logbooks and for data keypunch personnel. In addition, logbook data would be archived electronically making them readily available to stock biologists and economists.

Industry would benefit from fewer premature closures and the subsequent loss of revenues. The amount of time and effort spent by industry personnel filling out NMFS logbooks and inseason forms would decrease from current levels when electronic logbooks (phase 2) are distributed in 1999. Electronic logbooks would summarize the processor's activities and automatically produce daily and weekly production reports for submission to NMFS.

Alternative 2 would reduce industry's transmission costs, especially for at-sea processors. Compressed electronic files would require fewer characters and take less time to transmit than faxed reports. The savings would largely accrue during the satellite portion of the transmissions.

None of the alternatives is expected to result in a "significant regulatory action" as defined in E.O. 12866.

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# Memorandum

**To:** North Pacific Fisheries Management Council  
**From:** Douglas Pohl  
**Date:** December 11, 1996  
**Subject:** Agenda Item D-2, Friday, December 13, 1996

**Electronic Reporting**

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## BACKGROUND

NMFS has been actively developing new electronic reporting systems for the observer program and for the regional recordkeeping program (check in/out, weekly production reports, logbooks etc.). On July 30, 1997 NMFS published an Environmental Assessment/Regulatory Impact Review (EA/RIR) regarding electronic recordkeeping and reporting for NMFS documents. When the Council learned that industry had not been involved in either of the electronic reporting systems, NMFS was directed to hold meetings with industry. Since that time two joint meetings have been held with NMFS. Specific questions have been asked without receiving answers to those questions. More importantly, specific recommendations by industry have not been implemented in either program. On December 2<sup>nd</sup>, NMFS published a notice of Final Rule in the Federal Register. On December 9<sup>th</sup>, the Advisory Panel heard testimony from both the NMFS and from industry. Important issues still remain outstanding. This document addresses specific issues with recommendations to better inform council members and other interested parties.

## RECOMMENDATIONS

1. Industry stands to loose, if the proposed Rule is not revised, a significant investment of over \$500,000 in cc:Mail hardware and software plus arguably an even greater sum expended privately for training fishing crews and office staff. Losses for NMFS are not known but believed to be significant. Losses are the result of the proposed Rule eliminating the use of the cc:MAIL system which NMFS specified four years ago and which industry relied on and has been using with great success (72 ships that use cc:Mail are responsible for catching 80%+ of the groundfish). Additionally, both NMFS and industry will be required to make new substantial investments without a thorough justification and full economic assessment. NMFS omitted consideration of using the existing cc:Mail system as an alternative in the Environmental Assessment/Regulatory Impact Review dated July 30, 1996, even though cc:Mail is the present functioning system.

**Recommendation:** Direct NMFS to keep and allow cc:Mail as one of the transports for electronic reporting of 'binary files'. Industry and NMFS should be conserving resources, the cc:MAIL reporting system is a fully operational system for electronic reporting and two-way messaging. The bottom line is we shouldn't be eliminating cc:Mail that by NMFS own admission works.

2. All vessels are not able to use a single communications technology. Example: Each ship has a physical limitation with regard to being able to stabilize a large satellite antenna which must accurately track a satellite while the vessel pitches and rolls in a seaway. Likewise, communications costs associated with a particular technology should not be viewed as best for all users. Example: Standard A users pay according to the amount of air-time used to transmit the data file. Standard C users pay for data transmission by the data unit called a 'byte' or 'character'. Standard C costs are approximately 1 cent per byte or character. Standard A costs are as low as ~\$6.00 per minute. Standard A users can easily send over 100,000 bytes of information in less than 2 minutes (i.e. <\$12.00). The same transmission by a Standard C user would cost \$1,000 (i.e. 100,000 x \$.01). New NMFS 'raw' data reporting will likely increase the quantity of data being reported by an estimated 20 times (20X). Small businesses using Standard C communications equipment can anticipate their new 'raw' data reporting costs increasing by hundreds of dollars for a single message. New technology exists which can reduce costs of reporting if allowed to be used. One example is known as digital marine shortwave radio which offers radio air time that is free and monthly use flat rates to keep costs very low. The proposed Rule has no provisions for allowing new technology, not even the four month old "OceanCell" which offers air time for less than \$1.50 per minute compared to Inmarsat's approximate rate of \$6.00 per minute. We do not want to be using old technology that causes an economic burden, especially on small businesses that are using NMFS exempted Standard C equipment. Industry must be given the flexibility to try new technology without the road blocks of regulatory amendments that can require years for approval. NMFS has specified a "point-to-point modem connection" which is not supported by 46% of the smaller fishing fleet's communications equipment known as 'Standard C'. There is no 'technical' basis known for this 'point-to-point modem connection' requirement. 46% of the fishing fleet should not be exempted - the problem lies in the Rule itself. Matter of fact, all future communications technologies will be digital and the use of a modem will become obsolete in 1997 when Motorola releases an all 'software' modem replacement solution.

**Recommendation:** Revise the Rule to allow ALL communication systems that can deliver a 'binary file' to the NMFS host computer. Do not specify 'a point-to-point modem connection'. Standard C communications equipment is an advanced digital mode system which cannot meet this requirement. Likewise, so is the latest Inmarsat Standard B terminal (costing \$40,000+) an advanced digital mode equipment and will not meet the technical 'modem connection' because it does not use a 'modem' but rather uses a "codec". Technically both of these equipments cannot meet this requirement since they do not use a 'modem'. A Standard C actually sends messages which are stored and forwarded by electronic means (computers) to the final addressee. The goal is delivery of 'binary files', not owning communications equipment. Since the savings of electronic reporting to NMFS is said to be \$100,000 for not printing logbooks, there could be a basis for NMFS paying for messages the same way as the national weather service and Coast Guard does for reports from ships at sea.

Compliance should be viewed as the act of delivering useable information to NMFS. Compliance should not be the act of buying and owning specified hardware or transmitting on a specified communication links. The Rule is already outdated and does not allow but for old technology. Change the Rule for today's and the future's technology which can delivery 'binary data' to the NMFS host computer.

3. Industry requires copies of all reports submitted to NMFS. cc:MAIL currently allows for one transmission to multiple addresses (NMFS, company, third party statistician) and saves considerable costs by not requiring separate transmissions to each addressee. Internet e-mail also allows for multiple addresses and could save industry considerable costs.

Industry has requested that the Electronic Reporting system accommodate the use of a floppy disk to transfer the NMFS's data file from a shipboard 'data entry' PC to the vessel's bridge based PC for actual communications transmission.

**Recommendation:** Direct NMFS to accommodate cc:Mail, and Internet as communications gateways. Additionally, structure the reporting software so that data files can be transferred from a 'preparation' PC to the communications PC by using a floppy disk. If cc:MAIL and the Internet are used, the multiple transmissions issue is resolved.

4. Multiple electronic communications gateways can solve users' diverse requirements while facilitating new technology and growth. Continue to use the existing cc:MAIL gateway system that 70+ vessels have used successfully over the past four years. Add NMFS's proposed 'JFT' system as an alternative communications system. If JFT is as good as NMFS says it is, industry will migrate to it and adopt its use. Likewise, we know how good the Internet is so lets add an Internet gateway system for electronic reporting. Basically all that is required is an e-mail box address to receive messages with 'binary file' attachments. The benefits of Internet communications are already known. All three of the mentioned gateway systems are in existence at NMFS and would not require significant additional funding or loss of time to implement. Industry asked for gateways in Seattle since communications circuits into Juneau have been poor and have required additional costs with dropped connections and up to 7 times requiring extreme communications difficulties. Installation of communications gateways make sense in Seattle. Internet costs for users are estimated at \$20-30.00 per month and would offer considerable savings over long distance telephone transmissions. Security is not an issue with any of these gateway or communications using a proper password, S/MIME, RSA public key encryption and DES (digital encrypted signature) technologies.

**Recommendation:** Direct NMFS to facilitate electronic reporting gateways using cc:MAIL, JFT and Internet for the delivery of 'binary files' to NMFS's host computer.

(Electronic Reporting equipment diagram attached for reference as Page 4)

